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YOR92003 0217 US1 (RMT) (8728-628)

Fig. 1

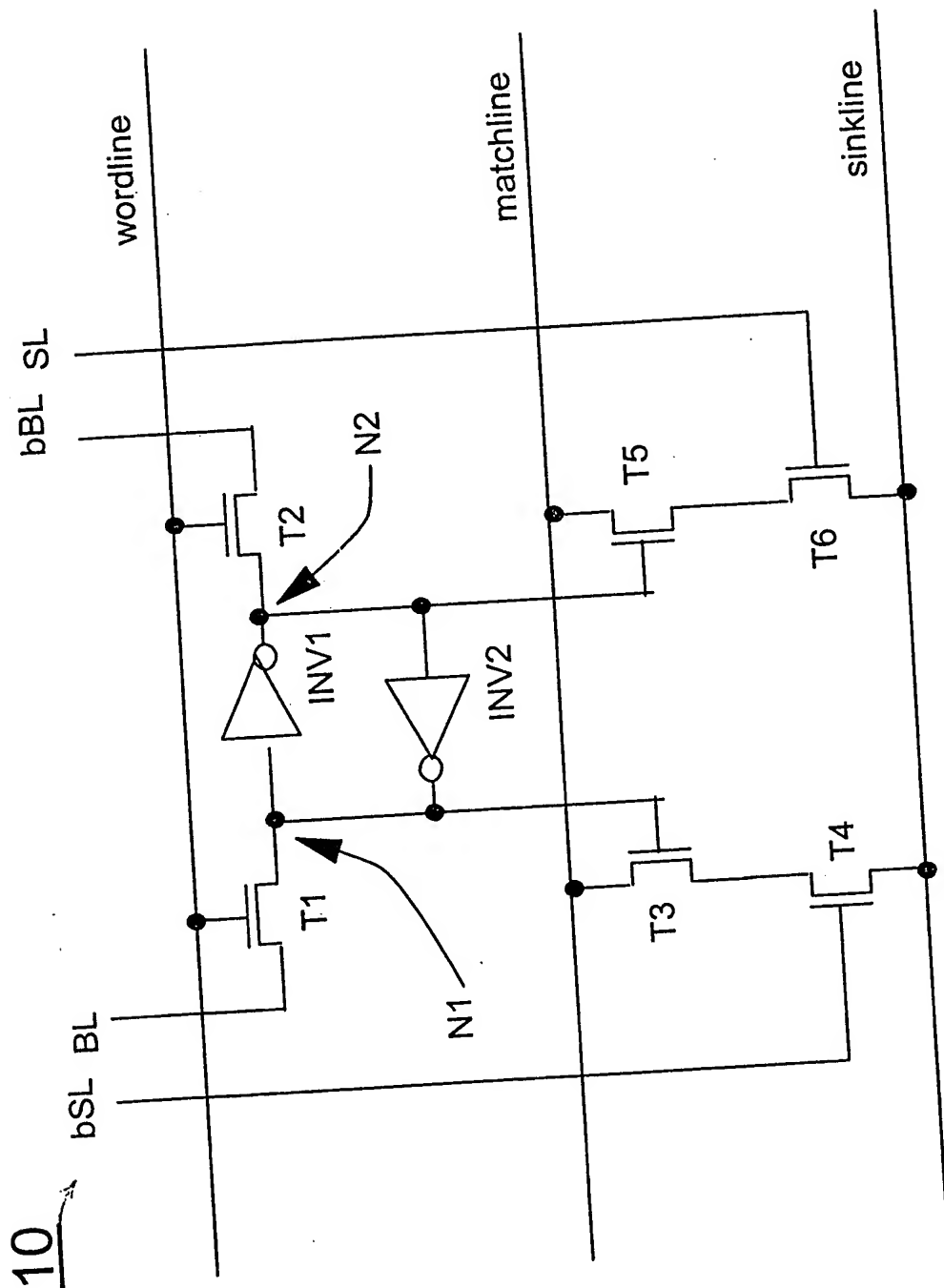
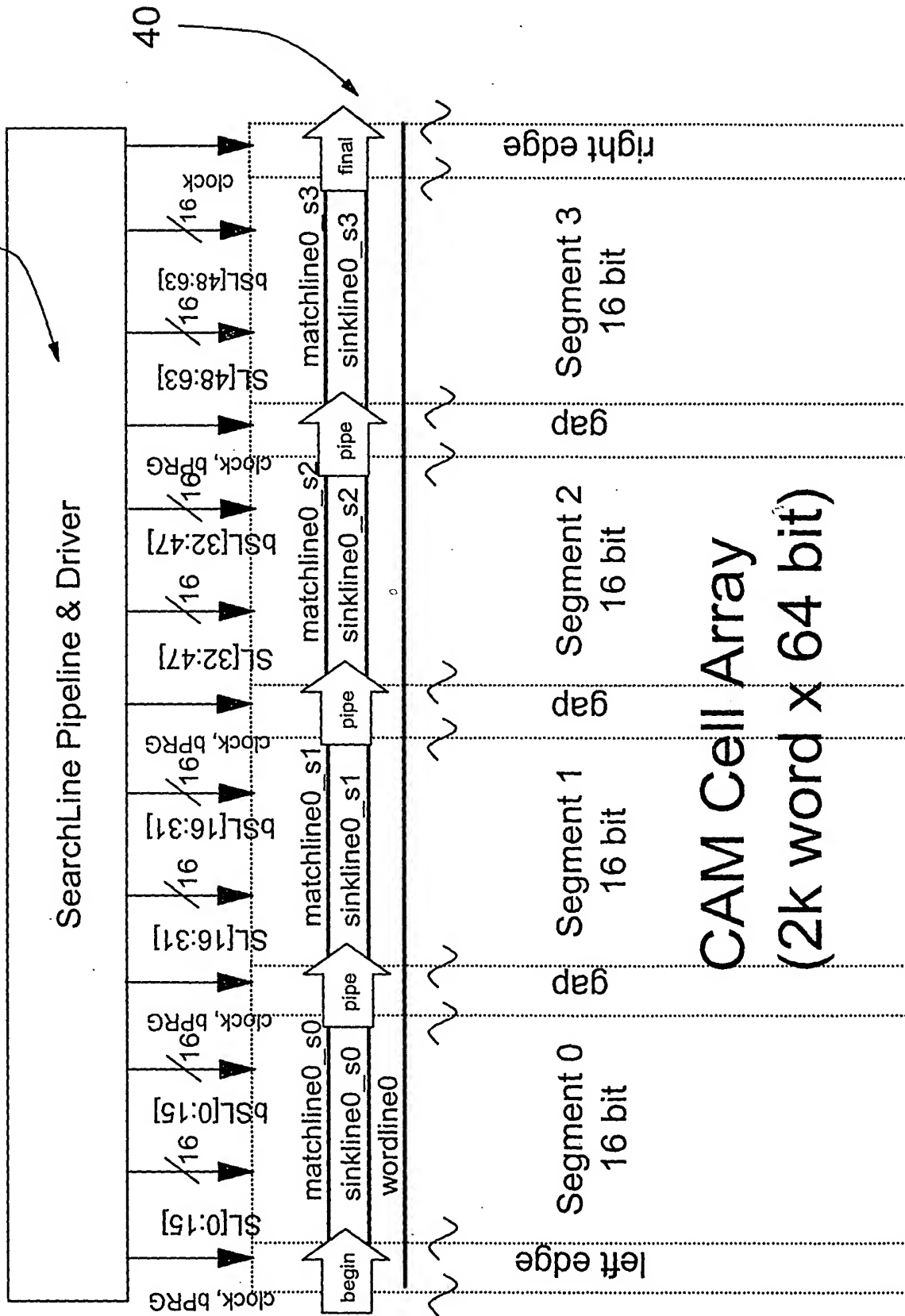


Fig. 2

20



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YOR920030211051 (8726 L66)

Fig. 3

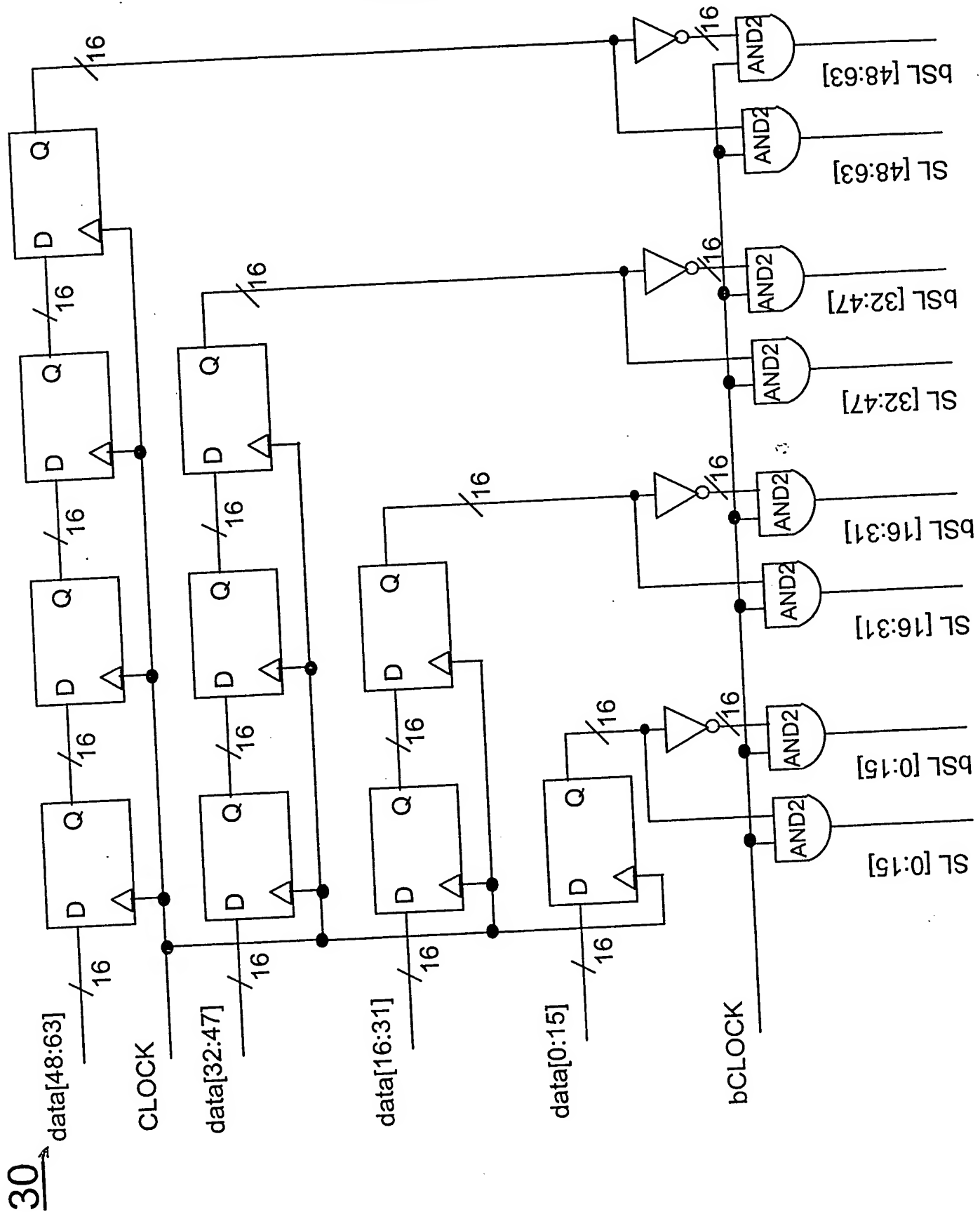


Fig. 4

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YOR92003000-11 (8928-600)

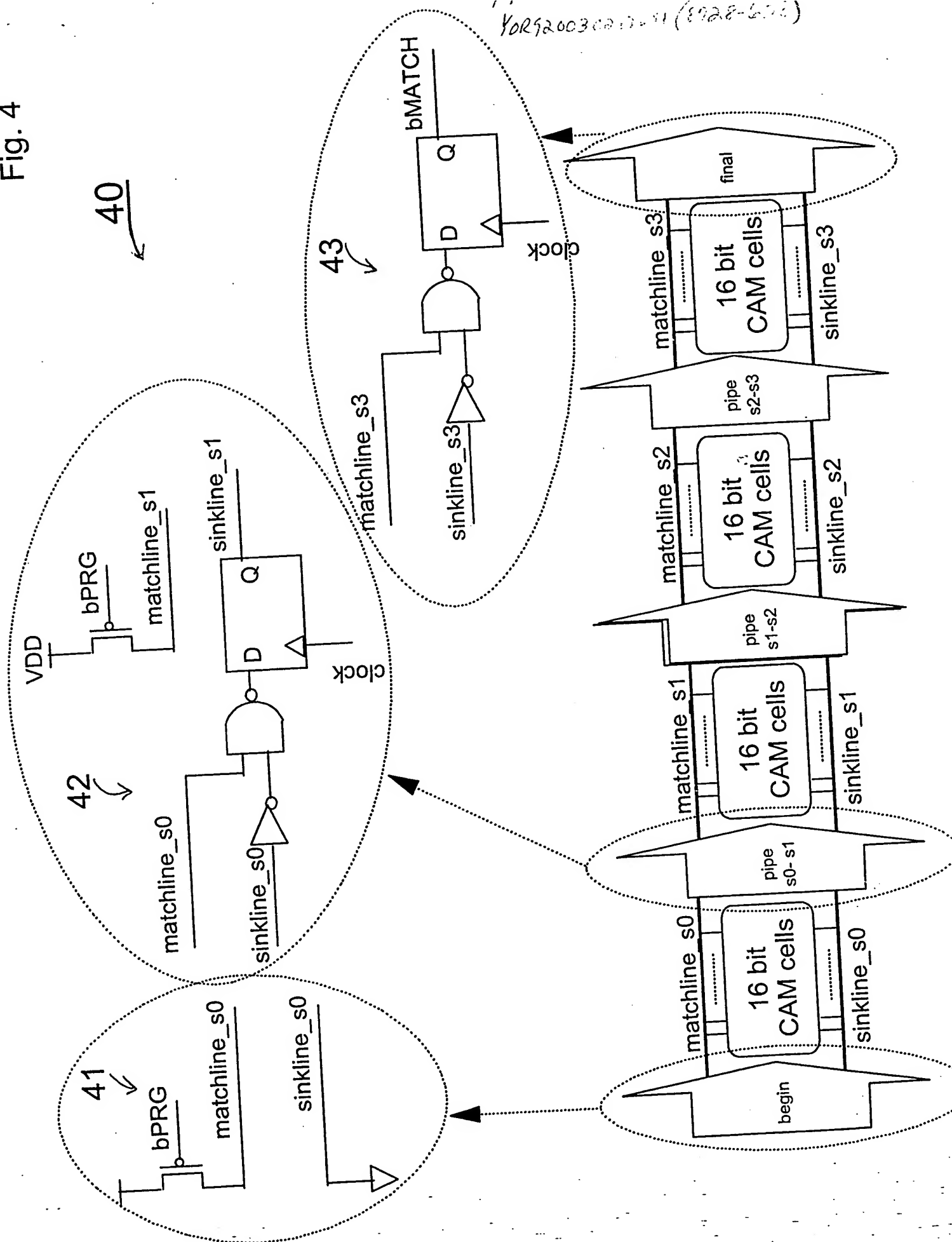


Fig. 5

500

	Segment 0 1st clock	Segment 1 2nd clock	Segment 2 3rd clock	Segment 3 4th clock	bMATCH
wordline 0	Sinkline = 0 compare => mismatch	Sinkline = 1 no compare	Sinkline = 1 no compare	Sinkline = 1 no compare	1
wordline 1	Sinkline = 0 compare => match	Sinkline = 0 compare => match	Sinkline = 0 compare => match	Sinkline = 0 compare => mismatch	1
wordline 2	Sinkline = 0 compare => match	Sinkline = 0 compare => mismatch	Sinkline = 1 no compare	Sinkline = 1 no compare	1
wordline 3	Sinkline = 0 compare => mismatch	Sinkline = 1 no compare	Sinkline = 1 no compare	Sinkline = 1 no compare	1
wordline 4	Sinkline = 0 compare => match	Sinkline = 0 compare => match	Sinkline = 0 compare => match	Sinkline = 0 compare => match	0
wordline 5	Sinkline = 0 compare => match	Sinkline = 0 compare => match	Sinkline = 0 compare => mismatch	Sinkline = 1 no compare	1
wordline 6	Sinkline = 0 compare => mismatch	Sinkline = 1 no compare	Sinkline = 1 no compare	Sinkline = 1 no compare	1
.....					

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NR90003001, 051 (8728-620)

Fig. 6

600

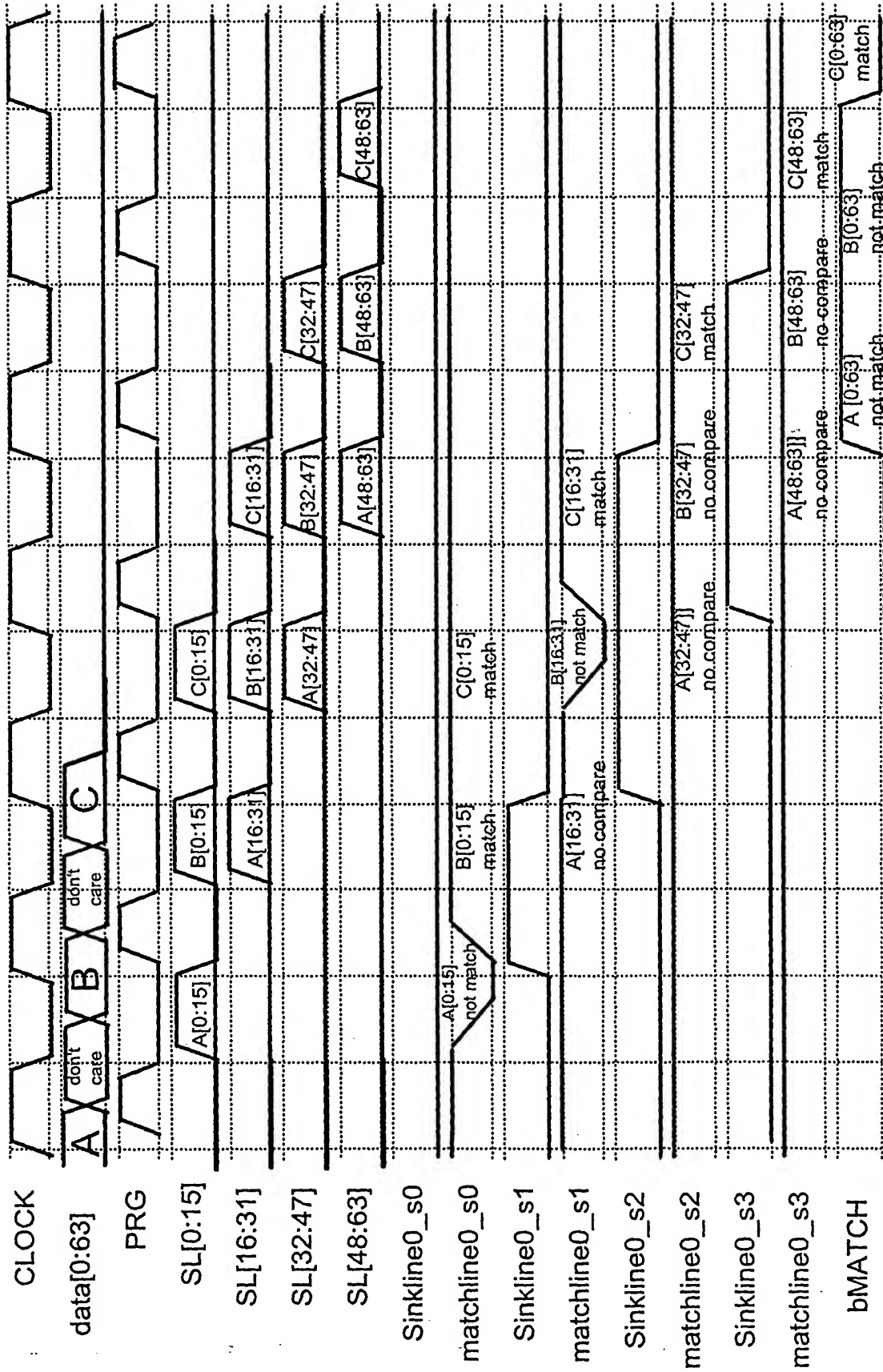


Fig. 7

700

cases for searchline patterns applied to a word		N-segment architecture Power consumption per cycle			Non-segmented architecture Power consumption per cycle		
		matchline	sinkline	total	matchline	sinkline	total
case 1	continuous all-matching words	0		0	0		0
case 2	alternating between all matching word and 1st seg mismatch	$CV^2/2$	$(N-1)*CV^2/2$	$NCV^2/2$	$NCV^2/2$	0	$NCV^2/2$
case 3	alternating between 1st seg mismatch and last-seg-only mismatch	CV^2	$(N-1)*CV^2/2$	$(N+1)*CV^2/2$	NCV^2	0	NCV^2
case 4	random distributed one-seg-only mismatch	CV^2	$\sim NCV^2/6$ for large N	$(1+N/6)CV^2$ for large N	NCV^2	0	NCV^2
case 5	random data	CV^2	~ 0	$\sim CV^2$	NCV^2	0	NCV^2
case 6	mismatch concentrated in one segment	CV^2	~ 0	$\sim CV^2$	NCV^2	0	NCV^2
case 7	random distributed first mismatched seg	CV^2	$\sim NCV^2/6$ for large N	$(1+N/6)CV^2$ for large N	NCV^2	0	NCV^2